

Table 17: Detailed Costs for Recommended Plan

Channel Costs																			
Segment	Length (ft)	Sideslopes	Slope (ft/ft)	Top Width (ft)	Bottom Width (ft)	Design Depth (ft)	Q (cfs)	Velocity (fps)	Freeboard (ft)	ROW Width (ft)	Channel Excavated Volume (cy)	Channel Excavation Unit Cost (\$/cy)	Maintenance Road (sy)	Maintenance Road Unit Cost (\$/sy)	Landscape Unit Cost (\$/sf)	Landscape Cost	Land Acquisition (acre)	Land Acquisition Cost (\$/acre)	Total Channel Costs
67th Ave Channel - Vineyard to L.A.C.C.	3466	5:1	0.0015	40	10	3	59	1.82	1.3	65	3932	\$6.00	9243	\$7.40	\$1.50	\$337,935	5.2	\$27,000	\$569,563
Western Canal Channel (43rd to 47th)	2600	5:1	0.0079	60	10	5	400	5.58	2.1	100	4915	\$6.00	6933	\$7.40	\$1.50	\$390,000	6.0	\$27,000	\$631,956
Western Canal Channel (47th to 49th)	1644	5:1	0.0030	85	20	6.5	777	4.56	2.3	125	7998	\$6.00	4384	\$7.40	\$1.50	\$308,250	4.7	\$27,000	\$516,057
NOTE: Includes channel top width, 24ft maintenance road, and embankment transition.													NOTE: Cost based on trail surfacing.			NOTE: Does not include site amenities or signage.			\$1,717,577

Culvert Costs

ID: Location, Crossing	Number of Crossings	Design Q (cfs)	Length (ft)	Slope	Material / Type	Number of Barrels	Diameter/Height	Width	Unit Cost	Pipe/Box Culvert Cost	Inlet Headwall Unit Cost	Outlet Headwall Unit Cost	Total Culvert Costs
67th Ave Channel - Vineyard to L.A.C.C.	3	59	110	0.0050	CBC	1	5	8	\$510.00	\$168,300.00	\$3,700	\$5,500	\$195,900
Western Canal Channel (43rd to 47th)	2	400	110	0.0050	CBC	3	5	6	\$1,175.00	\$258,500.00	\$10,100	\$15,600	\$309,900
Western Canal Channel (47th to 49th)	2	777	110	0.0050	CBC	3	6	8	\$1,530.00	\$336,600.00	\$10,100	\$15,600	\$388,000
Western Canal Channel @ 49th	1	777	381	0.0368	CBC	3	5	8	\$1,530.00	\$582,930.00	\$10,100	\$15,600	\$608,630
													\$1,502,430

Detention Basins Costs

Location	Storage Volume (Acre-ft)	Depth (ft)	Top Area (acre)	Bottom Area (acre)	Excavated Volume (cy)	Excavation Unit Cost (\$/cy)	ROW Width (ft)	Landscape Unit Cost (\$/sf)	Landscape Cost	Land Acquisition (acre)	Land Acquisition Cost (\$/acre)	Total Cost
51st Ave & Baseline	33	8	10	7.7	114224	\$6.00	NOTE	1	\$551,760	13	\$27,000	\$1,588,104
43rd Ave & Dobbins	65	10	10	7.2	138747	\$6.00	"	1	\$551,760	13	\$27,000	\$1,735,240
44th Ave & Carver	100	10	20	15.9	289593	\$6.00	"	1	\$1,035,408	24	\$27,000	\$3,420,968
49th Ave & Elliot	27	6	10	8.3	88572	\$6.00	"	1	\$551,760	13	\$27,000	\$1,434,192
51st Ave & Dobbins	18	5	10	8.5	74617	\$6.00	"	1	\$551,760	13	\$27,000	\$1,350,460
NOTE: Assume 44ft wide all around basin to accommodate 24ft maintenance road and embankment transition.												\$9,528,964

Storm Drain Costs

Segment	Diameter (in)	Material	Length (ft)	Unit Cost (\$/ft)	Total Storm Drain Costs
51st Ave. (Dobbins to South Mt. Avenue)	48	RGRCP	2675	\$160.00	\$428,000
51st Ave. (Elliot to Dobbins)	36	RGRCP	4700	\$150.00	\$705,000
51st Ave. (South Mt. to Baseline)	84	RGRCP	2925	\$250.00	\$731,250
67th Ave - Vineyard to Salt River	66	RGRCP	3870	\$200.00	\$774,000
Baseline Road - 51st to L.A.C.C.)	48	RGRCP	1759	\$150.00	\$263,850
Carver Hills Area	36	RGRCP	3382	\$105.00	\$355,110
Dobbins Rd. (43rd to 47th)	36	RGRCP	2945	\$105.00	\$309,225
Dobbins Rd. (47th to 51st)	36	RGRCP	2726	\$105.00	\$286,230
Elliot Road - (49th to 51st)	36	RGRCP	2726	\$105.00	\$286,230
					\$4,138,895

Total Costs

Flood Control Feature	30% Cost Contingency	Total Cost
Channel Costs	\$515,273	\$2,232,850
Culvert Costs	\$450,729	\$1,953,159
Storm Drain Costs	\$1,241,669	\$5,380,564
Basin Costs	\$2,858,689	\$12,387,653
		\$21,954,225